

Electronic Supplementary Information
of
**A cellular/intranuclear dual-targeting nanoplatfom based on gold
nanostar for accurate tumor photothermal therapy**

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Table S1. Hydrodynamic diameter, zeta potential and longitudinal SPR peak of the GNS based nanoplatfoms after being modified step-by-step.

Sample	Hydrodynamic diameter (nm)	Zeta potential (mV)	longitudinal SPR peak (nm)
GNS	40.8±0.4	-21.3±1.1	741
GNS-PEG	45.3±0.4	-10.4±0.9	754
GNS-NLS	72.4±0.7	4.69±0.8	752
GNS-NLS@HA	93.2±0.5	-13.5±1.2	749

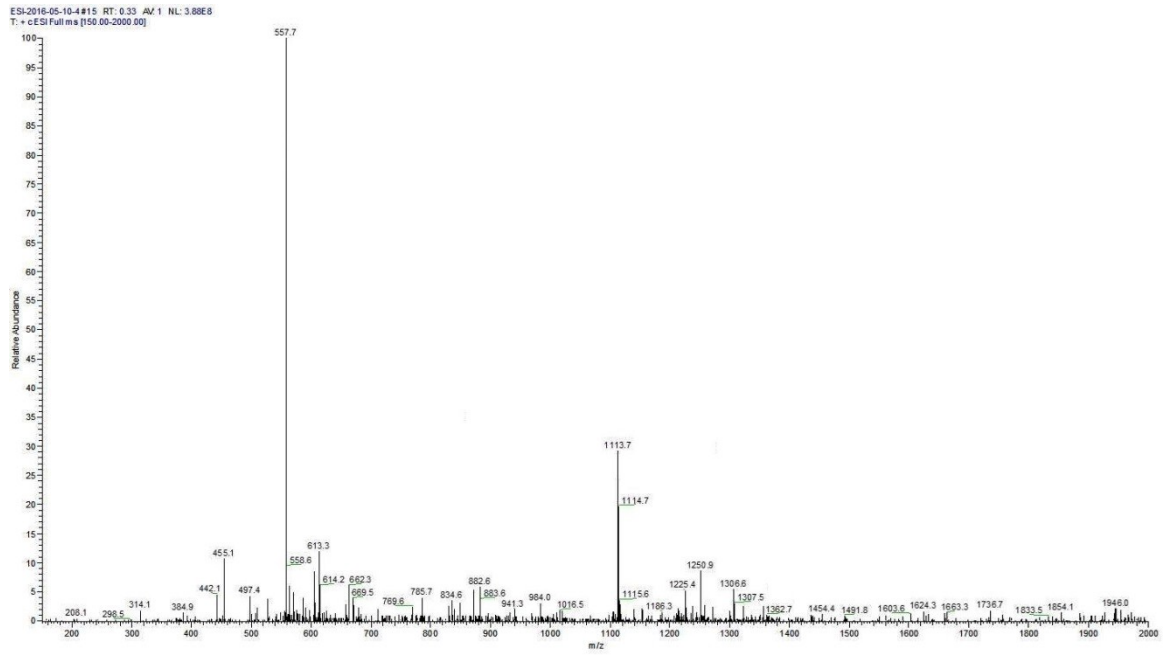


Figure S1. ESI-MS of peptide NLS.

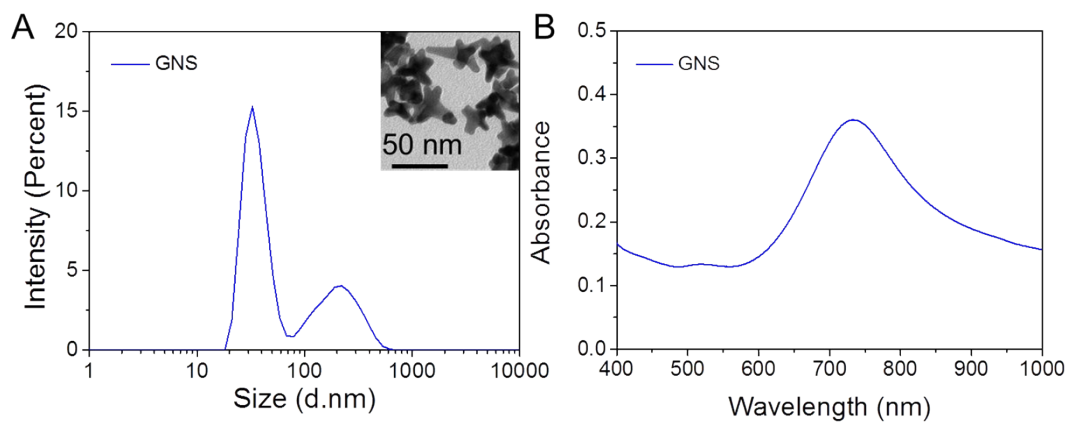


Figure S2. (A) Size distribution of GNS in DI water *via* DLS analysis, insert: TEM image of GNS; (B) UV-Vis-NIR absorption spectra of GNS.

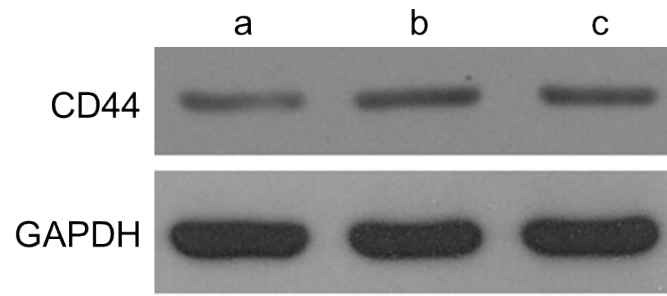


Figure S3. CD44 expression in (a) NIH3T3, (B) MCF-7 and (c) 4T1 cells by Western blot analysis.

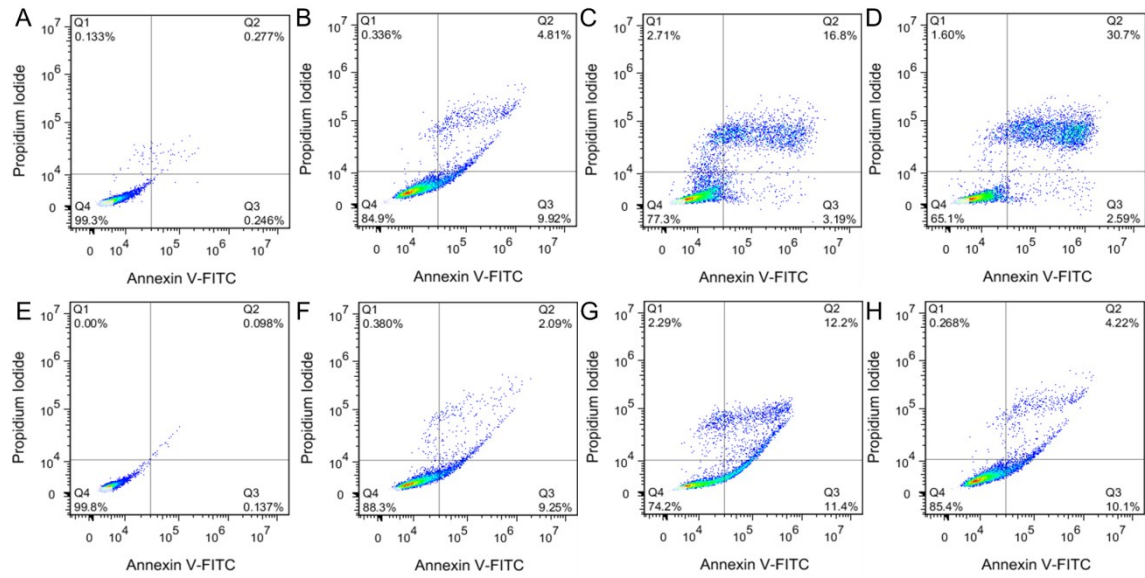


Figure S4. Apoptosis and necrosis of 4T1 (A-D) and NIH3T3 (E-H) cells analyzed by flow cytometry. (A, E) Untreated cells (control); (B, F) GNS-PEG+laser; (C, G) GNS-NLS+laser and (D, H) GNS-NLS@HA+laser.

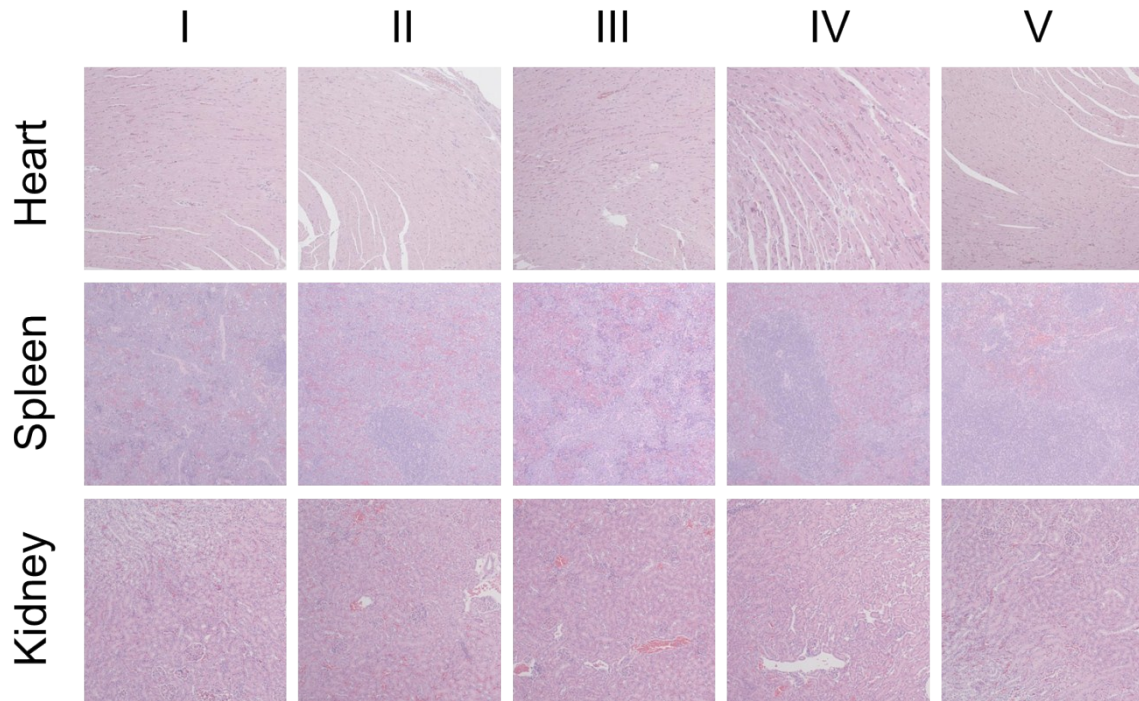


Figure S5. H&E staining images of main organs (heart, spleen and kidney) in groups treated with (I) PBS, (II) GNS-NLS@HA, (III) GNS-PEG+laser, (IV) GNS-NLS+laser and (V) GNS-NLS@HA+laser. The magnification was 200 ×.